

Listing of Claims:

Claim 1 (**withdrawn**) A pipette comprising:

a pipette tip ejector axially movable with respect to a pipette tip mounting shaft,

the pipette tip mounting shaft comprising:

a first conically tapered sealing zone, the first sealing zone comprising

a narrow end with an outer diameter of 0.11 to 0.13 inches,

a wide end with an outer diameter of 0.15 to 0.19 inches;

and being 0.15 to 0.20 in. long, to thereby form a tapered at an angle of 84 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a second conically tapered sealing zone, the second sealing zone being coaxial with the first sealing zone and comprising

a narrow end with an outer diameter of 0.20 to 0.21 inches,

a wide end with an outer diameter of 0.22 to 0.23 inches;

and being 0.53 to 0.63 in. long, to thereby form a tapered at an angle of 86 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a first annular pipette tip stop between and abutting and being coaxial with the first and second sealing zones, and further:

being substantially perpendicular to the axis defining the first and second conically tapered sealing zones; and

having an inner diameter equal to the wide end of the first sealing zone and an outer diameter equal to the narrow end of the second sealing zone;

a second annular pipette tip stop abutting the second sealing zone, the second stop:

being perpendicular to the axis defining the first and second conically tapered sealing zones,

having an inner diameter equal to the wide end of the second sealing zone.

Claim 2 (currently amended) A pipette comprising:

~~a pipette tip ejector axially movable with respect to~~ a pipette tip mounting shaft,

the pipette tip mounting shaft configured to alternatively engage and retain one at a time of a pipette tip of a first diameter and a pipette tip of a second diameter, comprising:

a first conically tapered sealing zone selectively engaged with the pipette tip of a first diameter, the first sealing zone comprising

a narrow end with an outer diameter of 0.18 to 0.20 inches,

a wide end with an outer diameter of 0.20 to 0.22 inches;

and being 0.10 to 0.15 in. long, to thereby form a tapered at an angle of 84 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a second conically tapered sealing zone selectively engaged with the pipette tip of a second diameter, the second sealing zone being coaxial with the first sealing zone and comprising

a narrow end with an outer diameter of .22 to .24 inches,

a wide end with an outer diameter of .24 to .26 inches;

and being .13 to .17 in. long, to thereby form a tapered at an angle of 86 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a first annular pipette tip stop between and abutting and being coaxial with the first and second sealing zones, and further:

being substantially perpendicular to the axis defining the first and second conically tapered sealing zones; and

having an inner diameter equal to the wide end of the first sealing zone and an outer diameter equal to the narrow end of the second sealing zone;

a second annular pipette tip stop abutting the second sealing zone, the second stop:

being perpendicular to the axis defining the first and second conically tapered sealing zones,

having an inner diameter equal to the wide end of the second sealing zone; and

a pipette tip ejector having a striker portion for striking the upper edge of the pipette tip, the ejector axially movable between a proximal retracted position and a distal ejecting position, the striker portion positioned axially proximal of the first and second annular pipette tip stops in the retracted position and positioned axially distal of the first and second annular pipette tip stops in the ejecting position.

Claim 3 (**withdrawn**) A pipette comprising:

a pipette tip ejector axially movable with respect to a pipette tip mounting shaft,

the pipette tip mounting shaft comprising:

a first conically tapered sealing zone, the first sealing zone comprising

a narrow end with an outer diameter of 0.25 to 0.28 inches,

a wide end with an outer diameter of 0.28 to 0.30 inches;

and being 0.13 to 0.15 in. long, to thereby form a tapered at an angle of 84 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a second conically tapered sealing zone, the second sealing zone being coaxial with the first sealing zone and comprising

a narrow end with an outer diameter of 0.30 to 0.32 inches,

a wide end with an outer diameter of 0.32 to 0.34 inches;

and being 0.15 to 0.17 in. long, to thereby form a tapered at an angle of 86 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a first annular pipette tip stop between and abutting and being coaxial with the first and second sealing zones, and further:

being substantially perpendicular to the axis defining the first and second conically tapered sealing zones; and

having an inner diameter equal to the wide end of the first sealing zone and an outer diameter equal to the narrow end of the second sealing zone;

a second annular pipette tip stop abutting the second sealing zone, the second stop:

being perpendicular to the axis defining the first and second conically tapered sealing zones,

having an inner diameter equal to the wide end of the second sealing zone.

Claim 4 (currently amended) A pipette comprising:

~~a pipette tip ejector axially movable with respect to a pipette tip mounting shaft,~~

the pipette tip mounting shaft configured to alternatively engage and retain one at a time of a pipette tip of a first diameter and a pipette tip of a second diameter, comprising:

a first sealing zone selectively engaged with the pipette tip of a first diameter, comprising
upper and lower ends, and

which is at an angle of 84 to 90 degrees with respect to the plane perpendicular to the axis of the first sealing zone;

a second sealing zone being coaxial with the first sealing zone, selectively engaged with the pipette tip of a second diameter, and comprising

upper and lower ends and,

which is at an angle of 84 to 90 degrees with respect to the plane perpendicular to the axis of the second sealing zone;

a first annular pipette tip stop between and abutting and being coaxial with the first and second sealing zones, and further:

being substantially perpendicular to the axis defining the first and second conically tapered sealing zones; and

having an inner diameter equal to the top end of the first sealing zone and an outer diameter equal to the lower end of the second sealing zone;

a second annular pipette tip stop abutting the second sealing zone, the second stop:

being perpendicular to the axis defining the first and second conically tapered sealing zones, and

having an inner diameter equal to the top end of the second sealing zone; and

a pipette tip ejector having a striker portion arranged for striking the upper edge of the one of the pipette tips of a first and second diameter engaged to the pipette tip

mounting shaft, the ejector axially movable from a proximal retracted position to a distal ejecting position by which the striker portion strikes the upper edge of the pipette tip thereby axially ejecting it from the pipette tip mounting shaft.

Claim 5 (currently amended) The pipette of Claim 2, further comprising:

the pipette tip mounting shaft further configured to alternatively engage and retain a pipette tip of a third diameter, when not engaged with a pipette tip of a first or second diameter;

a third sealing zone selectively engaged with the pipette tip of a third diameter, the third sealing zone being tapered between an upper and lower end; and

a third pipette tip stop defined at the upper end of the third sealing zone.

Claim 6 (currently amended) The pipette of Claim 4, further comprising:

the pipette tip mounting shaft further configured to alternatively engage and retain a pipette tip of a third diameter, when not engaged with a pipette tip of a first or second diameter;

a third sealing zone selectively engaged with the pipette tip of a third diameter, the third sealing zone being tapered between an upper and lower end; and

a third pipette tip stop defined at the upper end of the third sealing zone.